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[Name of Document] SPECIFICATION

[Title of the Invention] SEMICONDUCTOR DEVICE AND METHOD OF
MANUFACTURING THE SAME

[Claim for a Patent]

[Claim 1] A semiconductor device, comprising at least:
a semiconductor region;
a boron-doped phosphorus silicate glass (BPSG) film
formed over the semiconductor region; and
an oxide film containing nitrogen formed between the
semiconductor region and the boron-doped phosphorus silicate
glass film.

[Claim 2] The semiconductor device according to claim 1,
having a maximum value that a nitrogen concentration
distribution in a thickness direction of the oxide film is set
to a maximum value.

[Claim 3] A method for manufacturing a semiconductor device,
comprising at least the steps of:

forming an oxide film containing nitrogen over a
semiconductor region;

forming a boron-doped phosphorus silicate glass film over
the oxide film; and

heat-treating the boron-doped phosphorus silicate glass
film in an oxidizing atmosphere.

[Claim 4] A method for manufacturing a semiconductor device
according to claim 3, wherein a dinitrogen monoxide (N_2O) gas
or a nitric monoxide (NO) gas is used in the step of forming
the oxide film.

[Detailed Description of the Invention]